

Germanischer Lloyd

Richtlinien
für
die Durchführung von Baumusterprüfungen
Teil 0
Verfahren

Regulations
for
the Performance of Type Tests
Part 0
Procedure



Februar / February 1997

**Regulations
for
the Performance of Type Tests
Part 0
Procedure**

General Conditions

- Extract from the Rules for Classification -

A. General

Germanischer Lloyd (GL) is an independent organisation of technical experts.

GL act impartially and objectively.

The right of interpretation of their technical Rules for Classification and Construction rests with GL alone.

B. Reservation Clause

No confirmation or certification with regard to compliance of technical facts or products with the Classification and Construction Rules issued by GL must be given or issued by anybody other than GL.

Without relevant certificates being issued by GL, no statements must be made to the effect that the product in question was manufactured in accordance with the Rules of GL.

C. Protective Rights

The Construction Rules of GL will be applied without prejudice to any protective rights of third parties.

D. Confidentiality

GL will treat as confidential any documentation and information received in connection with orders placed with the Society. Such documentation and information may be passed on to third parties solely with prior written consent of the party entitled thereto. Proof of the power of disposal is to be furnished from case to case.

The above is without prejudice to any obligations towards the authorities of the state of the flag.

E. Fees

For services rendered by GL fees are to be paid in accordance with the Tariffs of Fees of GL, even if no classification is granted. In addition to these fees, GL will charge any extra expenses incurred in connection with the services rendered (e.g. travelling or other expenses and, where applicable, any value added/ turnover tax).

F. Payment of Invoices

1. The fees for all services rendered by GL are due for payment immediately upon receipt of the invoice. On default GL is - without prejudice to any further claims (e.g. legal costs and other expenditure) - entitled to charge interest at a rate customary in banking, to withhold certificates and other documents and to suspend or withdraw the classification.

2. Any rights of lien or retention in favour of the client, statutory or otherwise are hereby excluded. Likewise excluded are any rights of set-off with counter-claims, unless such counter-claim is undisputed or finally adjudicated upon the courts.

G. Liability

1. GL will exercise due diligence in selecting their surveyors and all other personnel whose services are employed for the purpose of performing their obligations.

2. The statutory conditions and warranties as are imposed on GL in respect of proper performance of their obligations are - unless they relate to specifically warranted qualities - confined to the client's right to demand that defects shall be put in order, all further rights being thereby excluded. In the event that all attempts to amend such defects fail, there shall be a right to demand a reduction in remuneration or rescission of the contract.

3. Claims for damages arising out of breach of duty in connection with negotiating the contract, breach of contract and any tortious act are excluded, in as far as only simple negligence may be attributed to GL, their statutory representatives, servants or agents.

4. The aforementioned claims for damages are likewise excluded in as far as gross negligence may be attributed to GL, their servants and agents, unless any statutory representative or leading executive acts by gross negligence.

5. Any liability for consequential damage is excluded.

6. As far as contractual or legal liability of GL should apply in accordance with the aforementioned Rules or in the event that any of these Rules may be considered ineffective, an eventual claim for compensation, disregarding the title - except in case of guaranteed capacity - shall be limited in its amount up to a maximum of the fee for that particular service (possibly faulty). Moreover all claims for damages, except those based on tortious act, will - irrespective of their legal origin - cease to exist six months after the services were rendered by GL.

7. Any personal liability on the part of the statutory representatives or servants or agents of GL is excluded, unless those act with intent to damage or by gross negligence.

8. As far as contractual or legal liability of GL should apply in accordance with the aforementioned Rules or in the event that any of these Rules may be considered ineffective, an eventual claim for compensation, disregarding the title - except in case of guaranteed capacity - shall be limited in its amount up to a maximum of the fee for that particular service (possibly faulty). Moreover all claims for damages, except those based on tortious act, will - irrespective of their legal origin - cease to exist six months after the services were rendered by GL.

H. Jurisdiction

The place of jurisdiction is Hamburg or, at the option of GL, the court competent for the client's place of residence.

The place of performance is Hamburg.

The governing law is German law.

I. Severability Clause

In the event of parts of the present General Conditions being or becoming ineffective, this will not affect the effectiveness of the remaining conditions. In the event of doubts as to the interpretation of the present General Conditions, the German text will be authoritative.

Germanischer Lloyd reserves the right of introducing amendments to these Regulations in the light of new technical development.

The interpretation of the present Regulations is the exclusive prerogative of Germanischer Lloyd.
Any reference to the application of these Regulations is permitted only with the consent of Germanischer Lloyd.
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Contents

	Page
Section 1 – General Conditions	1
A. Scope	1
B. Definitions	1
C. Type Testing	1
D. Publication	2
E. Fees	2
 Section 2 – Obligations and Requirements	 3
A- Obligation of Germanischer Lloyd	3
B. Obligation of the Client	3
C. Requirements to be met by Client	3
 Section 3 – Test Procedure	 4
A. Enquiry Submitted to GL	4
B. Application to GL	4
C. Order Confirmation	5
D. Examination of the Submitted Documents	5
E. Determining the Scope of the Test	5
F. Testing of Product	6
G. Test Report and Test Record	6
H. Type Approval Certificate	7
I. Licencing	8
K. Type-Test Certification for Third Parties	8
 Section 4 – Marking of Products	 9
A. Marking of Type-Tested Products	9
B. Use of GL's Name and Symbols	9
 APPENDIX	 10

Section 1

General Conditions

A. Scope

These Regulations describe the procedure for acquiring a Germanischer Lloyd (GL) type approval certificate.

B. Definitions

1. Client

The client is the contracting party responsible for the product in question.

2. Type approval certificate

Germanischer Lloyd's type approval certificate attests that the tested product possesses the stipulated requirements or the specified features.

3. Type test

The verification by GL, under prescribed test conditions, that a product possesses the stipulated features (characteristics), or those specified.

4. Test specimen

Representative specimen, as agreed with GL, usually taken from current production and submitted to the agreed tests.

C. Type Testing

All those products described in the current GL Rules of Construction as subject to type testing must undergo a type test in accordance with the procedure laid down in Section 3. A schematic flow chart of type-testing procedure is given in Annex 4.

On application, a type test may also be performed on products not subject to a mandatory type test.

After the successful conclusion of the tests, GL issues to the client a type approval certificate confirming that the products which have undergone the type test meet the stipulated requirements, and that these products are approved for use on ships and structures covered by GL classification.

D. Publication

All products which have successfully undergone GL's type test and for which a type approval certificate has been issued are made publicly known in the periodically up-dated List of Type-tested Products.

A List is supplied free of charge to each holder of a type approval certificate.

E. Fees

Payment is to be made for the services of GL in accordance with the current Schedule of Fees for the Performance of Type Tests (form 214).

Such payment is also due in cases where the test results do not warrant the issue of a type approval certificate. If the test is broken off, the costs incurred up to that point are calculated in accordance with the schedule of fees.

Invoices are normally submitted by GL after the conclusion of the type test. In the case of extensive or prolonged tests, interim invoices may be submitted.

Section 2

Obligations and Requirements

A. **Obligation of Germanischer Lloyd**

GL undertakes to treat confidentially all information and documents of which it acquires knowledge in the course of its professional activities associated with a type test.

Documents, reports and papers are preserved for at least 5 years following the validity of the type approval certificate.

B. **Obligation of the Client**

In commissioning the test, the client undertakes to perform and record in proper manner, or to cause to be so performed and recorded by a suitable institute, all the tests laid down in GL's Rules of Construction and in the Regulations for the Performance of Type Tests.

The test documents are to be preserved for at least 5 years following the validity of the type approval certificate.

The client undertakes - as stated in Section 3, H.4. - to notify GL immediately of any modifications to type-tested products.

The client undertakes, when advised in advance, to give members of GL's staff access to all manufacturing and testing facilities, and to provide him with all the information necessary to the performance of his duties.

C. **Requirements to be met by Client**

The possibility of type testing is confined to those products whose unvarying quality is guaranteed. The client must dispose of suitable production and test equipment, a competent staff and a quality management system, which ensures a steady production quality of the products. A type test carried out by GL does not relieve the client of his liability for the products.

Section 3

Test Procedure

A. Enquiry Submitted to GL

The enquiry relating to the proposed type test may be submitted to the Head Office of GL. No specific form is prescribed for this purpose.

The enquiry shall specify the nature, application and volume of the products to be tested.

If tests are envisaged which are not provided for in GL's Rules of Construction or Regulations, the corresponding technical codes of practice applicable are to be indicated.

The enquirer will then receive from GL form F 212 (the type-test order form - see Annex 1), and in case of need the current versions of the Regulations for the Performance of Type Tests.

B. Application to GL

The type-test order form F 212 is to be forwarded to the Head Office of Germanischer Lloyd. This commissions GL to undertake all the necessary examinations of the documentation, and to take part in the technical tests to be agreed (see Section 3, E.).

The order for the type test has, where applicable, enclosed with one set of the following documents:

- a) Product specification
- b) Drawings, lists of components, specification of materials used, catalogues, data sheets, calculations, functional descriptions and circuit diagrams
- c) Application, working area
- d) List of additionally applicable standards and regulations
- e) Test reports, together with the relevant records and certificates, in respect of tests which have already been carried out
- f) Certificates, issued by recognized institutions, for explosion-proof apparatus
- g) Instructions on fitting, assembly and operation
- h) Description of the quality management system or QM-certificate
- i) Representative test specimens, only where specially requested

Where necessary, further documents may be requested.

The testing of a product, and the completion of the relevant certificate, may be refused if there are technical reasons for such refusal, there is no adequate possibility of carrying out a test, or no evidence can be provided of compliance with the requirements to be met by the client (see Section 2, C.).

GL is under no obligation to perform the test within a time limit specified by the client.

C. Order Confirmation

The type-test order form F 212 is examined by GL, and any necessary alterations or additions are drawn to the client's attention when the order confirmation is forwarded on form F 213 (see Annex2).

Together with the order confirmation, the client is provided with an estimate of the time and cost involved, based on the expected expenditure on the test. The estimate reflects the information available at the time of submission of the order confirmation and may be different from the fees which are actually computed, particularly as a result of unforeseeable extra outgoings for which GL bears no responsibility.

D. Examination of the Submitted Documents

GL checks the documents to verify:

- a) Conformity with GL's Rules of Construction and Regulations, or with other agreed codes of practice, in force at the time of the application,
- b) Suitability of the product for a type test.

E. Determining the Scope of the Test

The laydown of the scope of tests and the test specimens are selected by agreement between the client and GL.

In the case of series production, representative specimens may be chosen for type testing.

Where the test specimens are prototypes, GL reserves the right to carry out comparative tests on series-manufactured units at a later date.

When the scope of the test has been established, the client is informed of the test requirements. The technical test requirements are taken from the relevant portions of the Regulations for the Performance of Type Tests. After agreement with GL the client draws up a timetable of the tests.

F. Testing of Product**1. Test conditions**

The client is responsible for making available suitable test facilities and personnel. The tests may be performed in the manufacturer's works, or in a suitable test institute. The costs of carrying out the tests are for the client's account.

The product is tested in the presence of a representative of GL. Tests, which have not been witnessed by a GL Representative, can be acknowledged.

Testing and measuring apparatus must be suitable for the test in question.

2. Performance of the tests

The tests are carried out on the basis of GL's Rules of Construction and Regulations and/or other agreed codes of practice.

All the tests are to be performed on the same specimens. Exceptions are subject to agreement.

Evidence has to be given to GL, that the quality-related actions in the production and the products meet the specifications laid down. GL reserves the right to examine this in the manufacturer's work.

3. Test result

The tests are regarded as successful only if all the test results lie within the prescribed tolerances, and no failures or cases of damage are observed. The removal of defects and repeat tests are allowed.

G. Test Report and Test Record

A test report in the German or English language is to be prepared by the client or his authorized agent.

The test report must contain all relevant data and test results. Where applicable its contents should comprise the following items:

- a) Place and date of the tests, the names of the responsible personnel carrying out the test
- b) Type references and serial numbers of the products tested
- c) Description of the specimens and of the selection method used
- d) Test specifications
- e) Test procedure
- f) Listing of the test and measuring instruments used (type references, serial numbers, evidence of sufficient accuracy)
- g) Environmental conditions during the tests
- h) Test results, test records
- i) Explanatory notes on any faults which may have occurred, and the remedial measures taken

Test reports and test records must be signed by the personnel members in charge of the test and are to be confirmed by the GL Representative by signing the test report.

One copy of the test report is to be submitted to GL.

GL is responsible for evaluating the test report.

H. Type Approval Certificate

1. Initial award of certificate

The type approval certificate is issued when products have passed the type test and met all the other conditions for certification.

The type approval certificate is in English. Where requested a version in German can also be issued.

Specimen of type approval certificate see Appendix 3.

2. Period of validity

Type approval certificates remain valid for 5 years from their date of issue. GL reserves the right to verify maintenance of the conditions of approval during this period.

3. Extension of the period of validity

When the validity of a type approval certificate expires, it may, on application, be extended for further 5 years provided that the product continues to conform to the current codes of practice, having undergone no changes with regard to its characteristics or construction.

4. Modifications of the product

GL shall be informed of any modifications to the product which are liable to affect its characteristics and functions, as originally specified and tested. This includes shifting of the production site or manufacturing under licence. If such notification is not made, the validity of the type approval certificate terminates.

Where the nature or extent of the modifications makes it necessary to retest the product, the client is to be informed. The test is performed in the manner described in item F.

5. Invalidity

GL reserves the right to declare a type approval certificate invalid if:

- a) Changes have been made to the type-tested product which constitute an inadmissible departure from the original product specification, or from the characteristics and functions verified in the type test;
- b) Substantial defects have come to light during operation;
- c) Through amendment to GL's Rules of Construction or Regulations henceforth the use of the product is restricted or not longer admissible;
- d) the fees for the type test are not paid;
- e) illegal use is made of the type approval certificate.

Prior a type approval certificate shall be declared invalid, the client receives written notification from GL and an opportunity to express his views.

The type approval certificate is to be returned to GL together with any existing copies.

GL reserves the right to make publicly known, and to state the reasons for, the invalidity of type approval certificates.

I. Licensing

The transfer of type approval certificates on third parties, e.g. the issue of licences, has to be agreed with GL.

The licensee shall submit an application for a type test together with a declaration of consent by the licensor to the effect that the licensee is entitled to manufacture the product in question and that use may be made of the results of the completed type test.

GL reserves the right to perform repeat tests on the products manufactured under licence. The scope of the tests is to be agreed between the licensee and GL.

K. Type-Test Certification for Third Parties

Where it is proposed that a type-tested product is to be marketed by third parties, the latter shall submit an application together with the declaration of consent by the holder of the type approval certificate.

A type approval certificate for third parties may be issued subject to compliance with the requirements stated in Section 2, C.

Section 4

Marking of Products

A. Marking of Type-Tested Products

All type-tested products are to be so marked that they are clearly identifiable.

In addition, the product should be permanently marked with the GL type-test symbol and the test certificate number.

B. Use of GL's Name and Symbols

GL permits the holder of a type approval certificate to make use of GL's name and symbols on the type-tested product, in correspondence and for marketing purposes.

If reference is made to the type approval certificate in publications, attention is to be drawn to any limitations applicable.

1. GL type-test symbols

- a) GL symbol for type-tested products (hardware) approved for use on seagoing ships, inland-navigation vessels and in the offshore sector:



- b) GL symbol for type-tested software approved for use on seagoing ships, inland-navigation vessels and in the offshore sector:



- c) GL symbol for type-tested software and hardware approved for use on seagoing ships, inland-navigation vessels and in the offshore sector:



- d) GL symbol for type-tested products approved only for use on yachts and small watercraft:



A P P E N D I X

Form F 212 E,

**Example of the order confirmation, the type approval certificate,
the schematic flow chart of type-testing procedure**



Germanischer Lloyd

Order for Type Test

On the basis of the Regulations for The Performance of Type Tests, we hereby commission Germanischer Lloyd to carry out a type test on the following products.

Client _____

Street _____ P.O.Box _____

Postcode, place _____ Postcode _____

Telephone / telefax _____ Expert in charge _____

Product(s) _____

Type _____

Enclosures:

- | | |
|---|--------------------------|
| Product specification, functional description | ☐ |
| Drawings, specifications, circuit diagrams | ☐ |
| Data sheets, catalogues | ☐ |
| Computations | ☐ |
| List of materials employed | ☐ |
| Intended use, range of application | ☐ |
| List of reference standards and regulations | ☐ |
| Test reports, including protocols and certificates on tests already carried out | ☐ |
| Certificates on explosion - protected equipment issued by recognized institutions | ☐ |
| Operating instructions, instructions for installation and assembly | ☐ |
| Description of quality system or QM certificate | ☐ |
| Representative test specimen, at special request only | ☐ |
| Planned test programme | ☐ |
| _____ | ☐ |
| _____ | ☐ |

We agree to the data quoted in the type test certificate being electronically stored and published by GL, also in the form of extracts.

Place, date

Company stamp / signature

Chairman of the Supervisory Board: Dipl.-Kfm. Walter Behrmann · Executive Board: Eike Lehmann, Hans G. Payer, Rainer Schöndube
Germanischer Lloyd Aktiengesellschaft; Registered Office, place of performance and jurisdiction: Hamburg. Amtsgericht Hamburg HR B 31393 The latest edition of the "General Conditions" (for classification) and the "General Conditions of Activities other than Classification" respectively are applicable. German law applies.



Germanischer Lloyd

Germanischer Lloyd AG · P. O. Box 11 16 06 · D-20416 Hamburg

Head Office

Vorsetzen 32, D-20459 Hamburg

Phone: 040/36 14 9-0

Telefax: 040/36 14 92 00

Telex: 212 828 glhh d

Name of Firm

Contact person

Street

Postcode, place

Your Ref.

Your letter of

Our Ref.

Extension

Date

Reference

Please indicate in your reply

Tgb. Nr.

+(0)40 3 61 49 - 0

Datum

Type test / Order No.

Dear Sirs,

Enclosed please find the following documents:

- ☒ Form F 212 E - "Order for Type Test"
- ☐ "Regulations on the Performance of Type Tests, Part 0"
- ☐ "Regulations on the Performance of Type Tests, Part ..."
- ☐ "Regulations for Use of Computers and Computer Systems"
- ☐ "Tariff of fees for the Performance of Type Tests "
- ☐

Kindly complete the Form "Order for Type Test" and return it to us, together with the relevant documentation, indicating the referenced order No.

Upon receipt of your order and determination of the scope of testings required you will receive our order confirmation, including information on the prospective amount of time involved in the type testing. You will be able to cancel your order within 14 days upon receipt of the order confirmation.

Yours faithfully,

GERMANISCHER LLOYD

.....
1st signature

.....
2nd signature



Germanischer Lloyd

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Head Office

Vorsetzen 32, D-20459 Hamburg

Phone: 040/36 14 9-0

Telefax: 040/36 14 92 00

Telex: 212 828 glhh d

Name of Firm

Contact person

Street

Postcode, place

Your Ref.

Your letter of

Our Ref.

Extension

Date

Reference

Please indicate in your reply

Tgb. Nr.

+(0)40 3 61 49 - 0

Datum

Order Confirmation , **GL-Order No.**

On the basis of Regulations for the Performance of Type Tests, we confirm your order for a performance of type test of the following products:

Product description :

Type :

The time required for the type test is expected to be day(s). This includes the examination of documents and the necessary administrative work.

The fees to be charged can be taken from the Tariff of Fees in force.

It is assumed that the tests are performed in our Surveyor's presence uninterruptedly on successive working days.

Travelling costs will be charged as incurred.

The original of type test certificate will be issued in the English language.

Remarks:

.....

Yours faithfully,

GERMANISCHER LLOYD

.....
1st signature

.....
2nd signature

Germanischer Lloyd

TYPE APPROVAL CERTIFICATE

No. 99 999 - 97 HH

This is to certify, that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

COMPANY

Company ABC
Company XYZ
ABC street
D-12345 City

PRODUCT DESCRIPTION

Protection Relays

TYPE

LRA1, LRB, LRC, LRD

ENVIRONMENTAL CATEGORY

C

TECHNICAL DATA / RANGE OF APPLICATION

LRA1 AC voltage relay ; LRB Frequency relay
LRC Mains decoupling relay ; LRD Generator-/mains monitor

Rated Frequency : fn = 50/60 Hz for LRA1
variabel 40 - 70 Hz for LRB, LRC and LRD

Rated Voltage : Un = 100 V AC / 230 V AC / 400 V AC

Software-Version :

LRA1 D00-5; D01-5; D02-5 dated 22.08.1994

D03-6; D04-6; D05-6 dated 02.05.1995

LRB... D04-5 dated 11.12.1995; D02-5; D03-5 dated 31.08.1994
D01-7 dated 08.12.95

LRC... D07-6; D08-6 dated 11.12.1995;
D02-6; D03-6; D05-6; D06-6 dated 31.08.1994
D01-7; D04-7 dated 02.01.96

LRD... D04-3 dated 11.12.1995; D02-3 dated 31.08.1994;
D03-3 dated 31.08.1994; D01-4 dated 24.07.95

-Tests and evidence according Requirement class 3

TEST STANDARD

Regulations for the Performance of Type Tests, Part 1
Regulations for the Use of Computers and Computer Systems

DOCUMENTS

Test report : No. 945 /EL 124/96 dated 16.12.96
T_ESD dated 16.02.97; T_BURST dated 24.01.97
T_SURGE dated 16.02.97; T_HF dated 16.02.97
T_STOSS dated 16.02.1997; T_SPGPR dated 16.02.97

REMARKS

None

TYPE APPROVAL SYMBOL

VALID UNTIL : 10.04.2002



PLACE : Hamburg
DATE : 11.04.1997
PAGE 1 OF 1

Germanischer Lloyd

H. D. Heepe
H. D. Heepe

A. Grün
A. Grün

File No. : I.L.02

Schematic Flow Chart of Type Test

Appendix 4

